

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

Claims 1-32 (cancelled)

33. (Currently Amended) An elongated tubular body suitable for use within a human body which has a cylindrical wall defining an inner lumen therein, which is formed of a superelastic alloy consisting essentially of about 30 to about 52% titanium, ~~about 28 to about 52% nickel, and~~ from greater than 0 to about 1020% of one or more elements selected from the group consisting of cobalt, ~~and chromium, iron, and copper~~ in a stable austenite phase, and the balance of nickel, wherein said superelastic alloy:- ~~which~~ will transform to a martensite phase upon the application of stress; ~~which will~~ exhibits a recoverable strain of at least about 4% from the application of stress which transforms the austenite phase to the martensite phase; and ~~which~~ has been fabricated by a thermomechanical processing treatment which includes a final cold working of ~~about 10 to about 75% and then a memory imparting heat treatment at a temperature of about 450° to about 600° C.~~

34. (Previously Presented) The tubular body of claim 33, wherein the stress level at which the austenite phase transforms to the martensite phase is above 50 ksi.

35. (Previously Presented) The tubular body of claim 33, wherein the austenite-to-martensite transformation occurs at a relatively constant yield stress of above about 70 ksi.

36. (Previously Presented) The tubular body of claim 35 having an outer diameter of about 0.006 to about 0.05 inch and a wall thickness of about 0.001 to about 0.004 inch.

37. (Currently Amended) A tubular body for use within a lumen of a human body, comprising: a cylindrical shaped tubular member including an cold worked alloy of titanium, nickel, cobalt, and chromium, ~~and nickel, wherein the alloy is cold worked about 10% to about 40%,~~ and having a wall thickness of about 0.001 to 0.004 inch and an outer diameter of about 0.006 to 0.05 inch.

38. (Currently Amended) A tubular element for placement within a lumen of a human body, comprising:

a hollow tubular shaped element having an inner lumen extending therein, and ~~including~~ includes an alloy of titanium, nickel, cobalt, and chromium, ~~and nickel, said alloy further comprising~~ and an element selected from the group consisting of ~~vanadium,~~ palladium, platinum, and niobium, wherein the alloy is cold worked.

39. (Currently Amended) The tubular element of claim 38, wherein the alloy is cold worked about 10% to about 40%.

40. (Currently Amended) The tubular element of claim 38, wherein the hollow tubular shaped element has an outer diameter of about 0.006 to 0.05 ~~0.05 to 0.006~~ inches.

41. (Previously Presented) The tubular element of claim 38, wherein the hollow tubular shaped element has a wall thickness of about 0.001 to 0.004 inch.

42. (New) The elongated tubular body of claim 33, wherein said thermomechanical processing treatment imparts a final cold working ranging from about 10 to about 70%.

43. (New) An elongated tubular member for use in a body lumen, comprising: an elongated body comprising a superelastic NiTi alloy, wherein said superelastic NiTi alloy further comprises at least one ternary element.

44. (New) The elongated tubular member of claim 43, wherein said at least one ternary element is chosen from Cu, Fe, Co, Cr, Pt, and Pd.

45. (New) The elongated tubular member of claim 43, wherein said superelastic NiTi alloy has an austenite finishing temperature A_f of less than or equal to 40° C.

46. (New) The elongated tubular member of claim 43, wherein said at least one ternary element is chosen from Pt and Pd.

47. (New) The elongated tubular member of claim 46, wherein said at least one ternary element is present in said superelastic NiTi alloy in an amount ranging from greater than 0 atomic % to about 10 atomic %.

48. (New) The elongated tubular member of claim 43, wherein said superelastic NiTi alloy comprises at least two ternary elements.

49. (New) The elongated tubular member of claim 43, wherein said superelastic NiTi alloy transforms from an austenite phase to a martensite phase when under an applied stress of greater than 50 ksi.

50. (New) The elongated tubular member of claim 49, wherein said superelastic NiTi alloy transforms from an austenite phase to a martensite phase when under an applied stress of about 70 ksi or greater.

51. (New) The elongated tubular member of claim 43, wherein the entire elongated body is formed from said superelastic NiTi alloy.

52. (New) The elongated tubular member of claim 43, wherein only a portion of the elongated body is formed from said superelastic NiTi alloy.

53. (New) The elongated tubular member of claim 43, wherein said elongated body includes a proximal portion and a distal portion, wherein said distal portion comprises said superelastic NiTi alloy.

54. (New) The elongated tubular member of claim 43, wherein said elongated body comprises a proximal portion and a distal portion, wherein the proximal portion is at least partially coated with a polymer material.

55. (New) The elongated tubular member of claim 53, wherein the proximal portion that is coated with said polymer material comprises said superelastic NiTi alloy.

56. (New) The elongated tubular member of claim 43, wherein said superelastic NiTi alloy exhibits at least 4% recoverable strain.

57. (New) A method for making an elongated tubular member for use in a body lumen, comprising:

providing a superelastic NiTi alloy, said NiTi alloy further comprising at least one ternary element; and

cold working said superelastic NiTi alloy to form an elongated tubular body.

58. (New) The method of claim 56, further comprising heat treating said superelastic NiTi alloy.

59. (New) The method of claim 57, wherein said at least one ternary element is chosen from Cu, Fe, Co, Cr, Pt, and Pd.

60. (New) The method of claim 57, wherein said at least one ternary element is
Pt or Pd.